

# UCLA Faculty Association

News and opinion from Dan Mitchell since 2009

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Friday, January 3, 2025

## Multicampus Research

The University of California Office of the President has awarded \$15.5 million in grants to teams of UC researchers on the cutting edge of medicine, artificial intelligence, agriculture and climate justice.

Awarded every two years through a highly competitive process, the Multicampus Research Program Initiative (MRPI) draws on the world-class resources and capabilities of UC's \$7 billion research enterprise, uniting teams of cross-disciplinary experts from at least three UC campuses to pursue ambitious questions with immediate applications.

"The MRPI program funds discoveries that are made possible only by the convergence of disciplines to improve the lives of Californians and draws world-class student, faculty and staff talent to our university and our state," said UC Vice President of Research and Innovation Theresa Maldonado. "UC programs like this help keep California at the forefront of breakthrough research, technological innovation and equitable opportunities to thrive."

Since 2009, the university has made 125 MRPI grants totaling \$156.6 million and involving 739 UC faculty members. This year, 153 teams applied for grants. These are the 14 winners.

### Four teams will advance health and medical science, studying autism, active matter, sepsis and maternal health.

Scientists from UC Berkeley, UC Santa Cruz and UC San Francisco will use cell samples from patients with autism spectrum disorder to grow self-organizing, 3D clumps of neurological tissue in a lab. These "brain organoids" are an efficient, less invasive way to narrow the search for the molecular, cellular, and developmental factors that lead to autism spectrum disorder, an untreatable condition that affects 1 in 22 California kids.

Organoids are one example of active matter, an emerging paradigm at the intersection of physics and biology that studies instances of individual entities organizing themselves into coherent structures. Scientists at UC Merced, UC Santa Barbara and UC San Diego will use MRPI funding to establish the UC Active Matter Hub, seeding global leadership in a field with potential to reshape adaptive technologies and wearable devices.

A team from UC San Diego, UC Irvine and UCLA aim to scale up a proven method for detecting sepsis, an infection so dangerous that it kills 16 percent of people who contract it. UC scientists developed a life-saving algorithm that scans real-time data from electronic health records, assessing over 150 variables to detect early signs of infection so doctors can begin treatment. By rolling out this algorithm to more emergency departments across California, researchers aim to save 8,000 lives annually.

A lack of maternal health data is making it harder to fight the nation's escalating rates of illness and death among pregnant and postpartum patients. Experts from UC San Francisco, UC Irvine, UCLA and UC San Diego are joining forces to create a central clinical data repository for every pregnancy and birth across four major hospitals, which they'll use to study variations in care within the system and the impact on maternal and neonatal health outcomes.

### Three teams will make advances in agriculture.

Experts from UC's five Agricultural Experiment Stations will convene to study barriers and opportunities for California farms to adopt practices and principles of agroecology. The team from UC Davis, UC Berkeley, UC Santa Cruz, UC Merced, UC Riverside and UC Agriculture and Natural Resources aims to boost the agriculture industry's climate resilience, biodiversity, equity and economic viability.

Researchers from UC Riverside, UC Davis and UC Santa Barbara will develop and test new ways to decontaminate wastewater, destroying or filtering out toxic "forever" chemicals and disease-causing microbes so the water can be used to irrigate crops. That should ease water scarcity, a major constraint for California farmers that will only get worse as the climate warms.

Scientists at UC San Diego, UC Berkeley and UC Riverside aim to climate-proof agriculture by redesigning dirt. They'll use the grant to develop 3D-printable hydrogels to use in place of soil in

### The Council of UC Faculty Associations

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- UCSA's Letter Asking UC to Expand Commitment to Vulnerable Populations
- UC President Search Committee Statement
- Faculty File Historic Academic Freedom Unfair Labor Practice Charges Against UC
- Union Letter to UC with Benefits Demands

### Remaking the University

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- Why I Walked Out of the MLA for Good--And Why You Should Too (Guest Post) - 1/28/2025
- Highlights 11: Morons of the Master Race - 1/26/2025

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### Other Faculty Organizations

- American Association of University Professors
- California Faculty Association (NEA)
- UC-AFT

### Topics

UC (1912) politics (1789) UC Regents (1779) health care (1331) State Budget (1222) governor (1066) UC budget crisis (922) UC-Berkeley (859) diversity (668) pension (646) pensions (589) tuition (520) admissions (503) athletics (475) CSU (389) transportation (374) UC-Davis (365) online education (336) ucpr (295) UCOP (291) uc retirement (289) audio (288) new hotel-conference center (282) traffic

hydroponic or vertical farms. This high-tech dirt substitute will be infused with microbes that will help crops resist stress, grow faster and use less water.

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Four teams are devising solutions to challenges facing Californians on the front lines of climate change.

Researchers at UC Santa Barbara, UC Davis, UC Irvine and UC San Francisco aim to better understand how hotter and more frequent heat waves are affecting California's 6 million public school students. Working with students, teachers, administrators and families at nine schools across the state, they'll gather data on heat stress and pilot school-level changes that communities can use to protect themselves.

UC scholars have long engaged in climate justice partnerships across California. A team from UC Irvine, UC Santa Cruz, UC Santa Barbara and UCLA will analyze existing youth climate engagement programs at each campus and develop common principles to replicate these programs' impacts in California and around the world.

As record numbers of people seek asylum in the U.S., climate change multiplies the forces that cause people to leave their homes. Immigration scholars from UC San Diego, UC Berkeley, UC Irvine and UC Santa Barbara are teaming up with asylum organizations in the U.S. and Mexico to better understand how federal policies and practices affect migrants, particularly kids and families.

Led by UC Santa Cruz, eight campuses aim to use arts and culture to spur climate action. The UC Climate Action Arts Network will build on a previous MRPI grant to fund artists and communities across California to design creative approaches to grappling with the stark realities of climate change and injustice.

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Four teams are breaking new ground in AI and basic research.

California is America's most linguistically diverse state: nearly half of us speak a language besides English. And yet language-based artificial intelligence like ChatGPT has overwhelmingly been trained on English — which could become a problem as AI's influence expands into government, health care and culture. A six-campus team led by UC Santa Cruz will study whether and how prevailing AI technologies leave Californians behind and propose new ways to develop large language models that work equally well, no matter the user's mother tongue.

Scholars from UC Berkeley, UC San Diego and UC Davis are taking on what they call "one of the grand challenges of algorithms research." The team aims to speed up one of modern computing's foundational processes, matrix multiplication. Streamlining matrix multiplication could break through a bottleneck that's limiting advances in machine learning, data mining, physics simulations, ushering in the next generation of computational discovery.

Physicists use photons, or light particles, to investigate the fundamental laws of nature, gleaning insights on everything from gravitational waves to supernovae. But the photon-emitting X-ray devices used for research are big, expensive, finicky and hard to control. A team from UCLA, UC Irvine and UC San Diego aims to bring emerging quantum X-ray technology from theory to reality. By demonstrating quantum X-ray emission, they'll open the door to advances in basic sciences and commercial and medical applications.

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Source: <https://www.universityofcalifornia.edu/news/uc-awards-155m-research-grants-tackle-big-questions-health-ai-agriculture-and-climate-justice>.

Application information for new proposals: <https://www.ucop.edu/research-initiatives/programs/mrpi/files/mrpi-rfp.pdf>.

Posted by California Policy Issues at 3:25 AM No comments:

Labels: UC, UC-Berkeley, UC-Davis, UC-Irvine, UC-Merced, UC-Riverside, UC-San Diego, UC-San Francisco, UC-Santa Barbara, UC-Santa Cruz, UCLA, UCOP

Thursday, January 2, 2025

The Alternative Way



Each quarter we post the past three months of the blog in pdf format. The fourth quarter of 2024 can be read at <https://archive.org/details/oct-31-18/Dec%201/>. Of course, in pdf format, you can't directly access audio and video. Your choice.

(277) UC enrollment (276) enrollment (248) UC-San Diego (235) community colleges (231) LAO (214) UC-Irvine (177) fund raising (161) UC-Santa Cruz (147) UC-Santa Barbara (146) UC-San Francisco (144) controller (137) faculty center (136) ballot propositions (132) UC-Riverside (131) CalPERS (120) faculty pay (104) UC-Merced (103) Master Plan (102) Yudof (89) UCRS retirement (60) Faculty Association at UCLA (59) parking (59) privatization (59) CalSTRS (50) UC Berkeley (33) copyright (30) campus climate survey (28) UCRS (21) Michigan Model (18) UC Merced (17) uc funding (16) State Contribution (14) UCOP (14) Regents (13) faculty recruitment (12) UC pay (7) graduate education (6) UC San Diego (5) UCpolitics (3) teaching evaluation (3) UC Irvine (2) UC Santa Cruz (2)

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Posted by California Policy Issues at 3:45 AM No comments:    

Labels: miscellaneous

Back in the Day



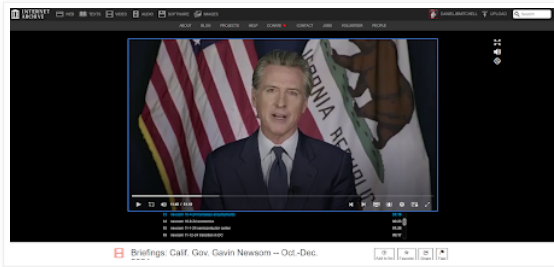
There was a time - back in 1962 - when you could drive from the San Fernando Valley through the Sepulveda Pass to UCLA on the 405 without worrying about the traffic. Of course, if you look carefully at the sign, you'll see the freeway ended three miles north of where the photo was taken.

Posted by California Policy Issues at 3:30 AM No comments:    

Labels: traffic, UCLA

Wednesday, January 1, 2025

The governor and the 4th quarter.



As we do each quarter, we track what the governor has done video-wise and related items. Politicos will know that his attention early in the fourth quarter was on the national election and the Harris-Walz campaign. But after Election Day, he focused on state and local issues. If, however, you were hoping that UC was one of the issues he focused on, you will have been disappointed.

You can see the fourth quarter 2024 collection at <https://archive.org/details/newsom-10-14-24-big-oil-long>.

Posted by California Policy Issues at 3:35 AM No comments:    

Labels: governor, politics, UC

Our New Year's Day Offering



► 2010 (431)  
► 2009 (12)

Contributors

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-  Toby Higbie
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Just to put things in perspective:



Or direct to <https://www.youtube.com/watch?v=sn38xhd8swc>.

Posted by California Policy Issues at [3:30 AM](#) No comments:     

Labels: [miscellaneous](#)

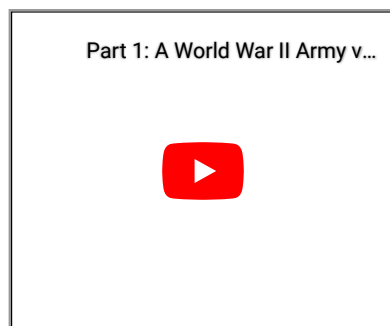
Tuesday, December 31, 2024

## Our New Year's Eve Offering



New Year's Eve can be exciting - or not. Back in the 1960s, radio commentator Jean Shepherd described his New Year's Eve in Kansas City at a burlesque show while in the Army during World War II.

Part 1: (10 minutes)



Or direct to <https://www.youtube.com/watch?v=zIDNzJARTVQ>.

Part 2: The denouement (2 minutes)

## Part 2: A World War II Army v...



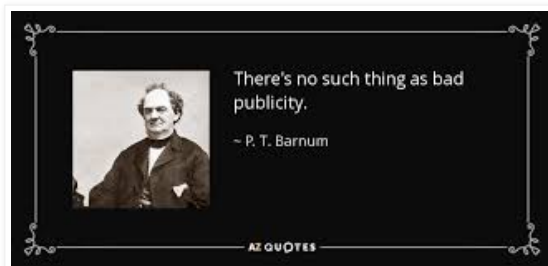
Or direct to <https://www.youtube.com/watch?v=4bNOzK7O4n8>.

Posted by California Policy Issues at [3:30 AM](#) No comments:

Labels: [miscellaneous](#)

Monday, December 30, 2024

Maybe not what the PR folks wanted.



Maybe Barnum said it. Maybe he didn't. But the idea is sure around. And getting a picture in the [New York Times](#) roundup of major photos of the year - especially as the centerfold - would normally be a Big Deal. My gut feeling, however, is that the UCLA PR folks - while they would normally be happy if a UCLA photo were included, weren't so pleased about the encampment shot below.



But then again, what do I know?

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